Montana Fish, Wildlife & Parks

3201 Spurgin Road
Missoula, MT 59801
March 26, 1997

Governor's Office, Attn: Julie Lapeyre
Environmental Quality Council
Dept. of Environmental Quality, POB 200901, Helena, MT 59620-0901
Montana Fish, Wildlife & Parks
Fisheries Division
Region 2
Endangered Species Coordinator
State Hist. Pres. Off., POB 201202, Helena, MT 50620-1202
MT State Lib., POB 201800, Helena, MT 59620-1800
MT Environmental Information Center, POB 1184, Helena, MT 59624
MT Audubon Council, POB 595, Helena, MT 59624
Missoula County Conservation District, 5115 Hwy. 93 South, Missoula MT 59801
Environmental Protection Agency, Federal Building, Helena, MT 59601
Army Corps of Engineers, 301 South Park Ave., Helena, MT 59601
U.S. Fish & Wildlife Service, 100 No. Park Ave., Helena, MT 59601
Western Montana "Fish & Game Assn. Box 4294, Missoula, MT 59806
Missoula Wildlife Assoc., 401 Burlington, Missoula, MT 59801
Westslope T. U., c/o Shawn Jeszenka, POB 7165, Missoula, MT 59807

Dear Ladies and Gentlemen:

The enclosed Environmental Assessment (EA) is submitted for your consideration. It was prepared for the proposed Future Fisheries Improvement project on O'Brien Creek. This project includes the construction of a fish barrier, placing log veins, large woody debris, stems and root wads on the outside of stream bends. This work is intended to reduce erosion and increase scour which will produce pools with high quality cover. This work should provide critical bull trout staging areas, improve cutthroat habitat and provide critical over-winter habitat.

Questions and comments will be accepted until 5 p.m. May 1, 1997. If you have questions, feel free to contact me at (406) 444-2432. All comments should be sent to the undersigned.

Thank you for your interest.

Sincerely,
Ron Pierce

Ron Pierce
Fisheries
Region 2

Missoula

O'BRIEN CREEK EA CHECKLIST

PART I. PROPOSED ACTION DESCRIPTION

1. Type of Proposed State Action Fish habitat and riparian restoration
2. Agency Authority for the Proposed Action Montana Fish, Wildlife and Parks
3. Name of Project O'Brien Creek Fish Habitat and Riparian Restoration Project

4. Name, Address and Phone Number of Project Sponsor (if other than the agency)
Ron Pierce, David Schmetterling, 3201 Spurgin Rd, Missoula, MT, 59804 542-5532

5. If Applicable:

Estimated Construction/Commencement Date July 1, 1997
Estimated Completion Date September 1, 1997
Current Status of Project Design (% complete) 75 %

6. Location Affected by Proposed Action (county, range and township)
Missoula County, T13N R20W sec 27, 28, 29, 33, and 34; stream mile .1 to 3.0

7. Project Size: Estimate the number of acres that would be directly affected that are currently:

(a) Developed:
residential...0 acres
industrial....0 acres

(b) Open Space/Woodlands/ Recreation....0 acres

© Wetlands/Riparian Areas.....2.0 acres

(d) Floodplain...2.0 acres

(e) Productive:
irrigated cropland...0 acres
dry cropland.....0 acres
forestry.....0 acres
rangeland.....0 acres
other..... acres

8. Map/site plan: enclosed

9. Narrative Summary of the Proposed Action or Project including the Benefits and Purpose of the Proposed Action.

ENVIRONMENTAL ASSESSMENT:

O'BRIEN CREEK STREAM HABITAT ENHANCEMENT PROJECT

Background

In the Missoula Valley, the Clark Fork and Bitterroot Rivers are severely limited by suitable spawning tributaries. Between Milltown Dam, east of Missoula and Nine Mile Creek (37 river miles) several tributaries exist. All have limitations and/or habitat and passage barriers that negatively affect adult native fish spawning and juvenile recruitment to the main rivers. Grant, Butler, Pattee, and Miller Creeks all may have historically had spawning runs of native cutthroat and bull trout, but now, due to problems ranging from development along the urban interface and irrigation, do not support spawning runs. Similarly, Marshall Creek is limited by a fish passage barrier and Rattlesnake Creek has several alterations in the lower third of the drainage that reduce habitat diversity. O'Brien Creek, west of Missoula, (T13N, R20W, Sec34) enters the Bitterroot River approximately 2 miles upstream of the Clark Fork River confluence, and has the unique ability to improve spawning and recruitment in both rivers. This creek represents the best opportunity to restore a spawning tributary in the Missoula Valley.

O'Brien Creek is a basin-fed second order stream with a mean base flow of 3-5 cfs. Fish habitat in the lower 3 miles of the drainage basin have been altered through past land use. Alterations include: 1)channelization resulting in loss of complex pool and rearing habitat, elevated sediment levels, head cutting and down cutting; 2) domestic conversion of riparian areas for livestock or lawns resulting in the loss of stream side vegetation leading to low woody recruitment for instream structure, bank stabilization and channel maintenance. All fish species are negatively impacted by these habitat changes.

Loss of course woody debris (CWD) and other organic input into the creek from altered riparian areas severely limits the productive potential of O'Brien Creek for spawning, over-wintering and rearing. The loss of quality pool habitat reduces the usefulness of this stream for cutthroat, in particular, due to their dependency on wood-formed complex pools in this type of basin-fed system. Poor representation of native salmonids in the lower Bitterroot and adjacent Clark Fork Rivers, may be partially explained by the deleterious changes in O'Brien Creek's fish habitat.

Fishery Restoration Results Phase 1 (completed)

The primary objectives of the initial phase of the restoration effort included: 1) improving fish passage through the system by removing at least two culverts identified as problematic; 2) removing an irrigation diversion structure; 3) improving the riparian condition in lower stream reaches. These were accomplished in the Summer and Fall of 1996.

The continuity of the stream system was restored with the removal of three culverts and a defunct irrigation weir. After fish sampling in 1996, we determined that, due to species composition longitudinally across the stream, fish were not using the entire system because of two fish passage problems related to a series of poorly designed culverts. Fish passage in the lower 2.5 miles was enhanced by these efforts.

We limited the negative impacts of livestock grazing on the stream by fencing

the most severely degraded riparian sections and creating two off-site watering sources on two individual properties. Approximately one-half mile of O'Brien Creek was fenced across two privately owned adjacent lots.

By targeting poor riparian land use management on O'Brien Creek for phase 1, the stream is made more conducive to proposed habitat enhancement efforts. After addressing management issues of riparian areas, fish and aquatic habitats are more receptive to a restoration activity and self-sustaining in the future.

Stream Habitat Inventory and Fish Population Survey Results

We conducted fish habitat and population surveys on O'Brien Creek in the summer and fall, respectively, of 1996. The habitat survey included a 10,064 foot section of the lower channel beginning at the Bitterroot confluence. Fish population surveys took place on three stations. As a control, we selected a section of stream representing intact quality fish habitat located two miles upstream of the Forest Service boundary.

Habitat Survey

One hundred seventy-three habitat units were surveyed, including 77 riffles, 82 pools and 9 glides. Though 82 pools were counted, only 26 were considered good quality. This rating is based on depth, cover and structural association. These quality pools accounted for only 4% of the total stream area. The distribution of these pools are relatively evenly distributed across the lower section. In our control section, there were approximately five times as many quality pools per 100 meters.

We counted all active, inactive and potential organic debris in the stream channel based on size. Woody debris in the control section was estimated , there was approximately ten times or greater amount than in the other two sections. This wood serves several functions in a stream: channel maintenance, formation of pools; protective cover and critical overwintering sites, reduction of stream energy, and reduction of sediment yield. The absence of organic debris and the subsequent lack of quality pool habitat limit the potential productivity of this creek.

Fish Population Surveys

We conducted fish population surveys in two sections of lower O'Brien Creek (Sections 1 and 2) and one section on Forest Service land (Section 3) in July 1996. These sections were chosen as representative of the stream reaches. The two downstream sections were riffle dominated, with few quality pools. Fish surveys (Figures 1 and 2) show that the targeted stations have lower fish density, less age class diversity, and lower populations of cutthroat relative to the control, which includes better habitat. The complex, wood-formed pools found in the control station, that were absent from the lower two sites, correspond to the higher cutthroat densities.

Project Elements

The first step in restoring this system to its potential was to ensure the connectivity of a stream system. This was accomplished in phase 1 with the removal of

fish passage barriers. Additionally, the source of much of the habitat degradation, poor riparian land management, was addressed by limiting or removing livestock from the riparian zones with off site watering and riparian fencing. These actions facilitate not only the next phase of habitat enhancement but the fishery's sustainability.

Using the existing stream channel, fish habitat improvements in O'Brien Creek will focus on areas lacking quality pool development. This effort is a simple project using "soft" enhancement techniques. These include placing log veins and large woody debris, stems and rootwads on the outside corners of stream bends (Appendix A). These native materials will not only reduce the rate of lateral erosion but also provide the scour needed to form pools and other forms of high quality cover consistent with Rosgen B3/C4 channel types found in the lower 3 miles of O'Brien Creek. All measures will focus on returning the stream to conform with its natural channel type. Final project design will be performed by a fluvial geomorphologist after spring run-off, 1997.

All project elements will be constructed to blend with the natural surroundings to the fullest extent possible. Our goal in this restoration project is to make our intrusion in the riparian area undetectable after a short recovery period. Disturbed areas will be seeded with native grasses, and shrubs planted to stabilize soil, armor banks, and provide shade and cover.

Supervision and planning of the fisheries project will be completed by Montana Fish, Wildlife & Parks personnel including Fisheries Manager Dennis Workman, Research Specialist Ron Pierce and David Schmetterling. Additional supervision and planning will come from Montana Power senior fisheries biologist Brent Mabbott in conjunction with the O'Brien Creek Homeowners Association and private landowners. Other cooperators include the USDA Forest Service and the US Fish & Wildlife Service.

Project Benefits

Wild fish populations in the Bitterroot and Clark Fork Rivers are dependant upon O'Brien Creek for reproduction and rearing of juvenile fish. Poor survival of juvenile salmonids in the Bitterroot River in this vicinity is a suspected cause for low densities of adult fish in this river section. Cutthroat trout require high quality tributary environments for life-stages from spawning to adult and especially for reproduction, rearing and over-wintering and are expected to benefit from this project. O'Brien Creek, in the project area, will provide these functions with habitat enhancement.

Fishery restoration of O'Brien Creek will have both on- and off-site benefits. On-site benefits include: 1) livestock management improvement measures including pasture rotation and off stream watering; 2) improved fish habitat which will improve fishing opportunities in O'Brien Creek; 3) decrease fish loss through irrigation system. Expected off-site benefits to the public include: 1) improved recruitment of rainbow and cutthroat trout to the Bitterroot and Clark Fork Rivers; 2) improved over-wintering survival of rearing fish, especially cutthroat trout; 3) increased opportunity to catch native cutthroat trout in the Bitterroot and Clark Fork Rivers; 4) increased species

diversity of fish populations in the Bitterroot and Clark Fork Rivers; 5) increased catch rates for less skilled anglers due to greater catchability of cutthroats; 6) maintenance of angling opportunities.

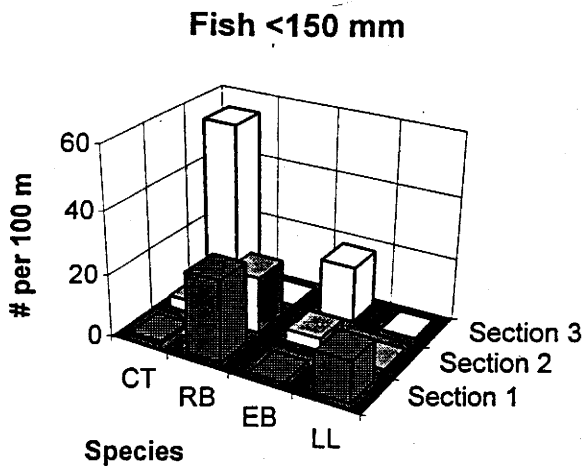


Figure 1. Fish population estimates per section, by species.

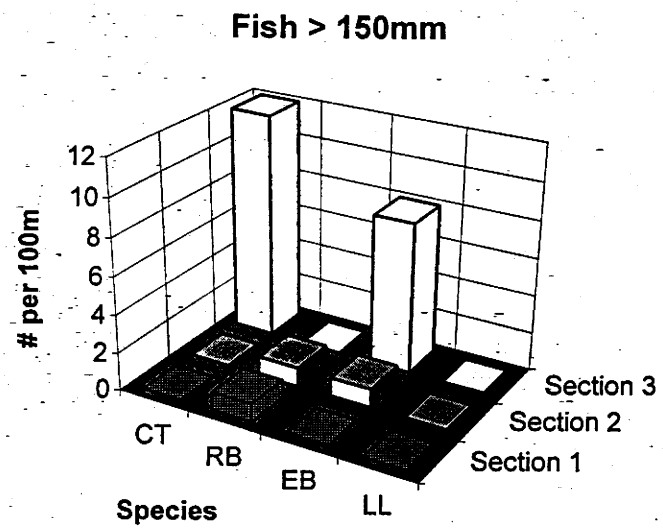
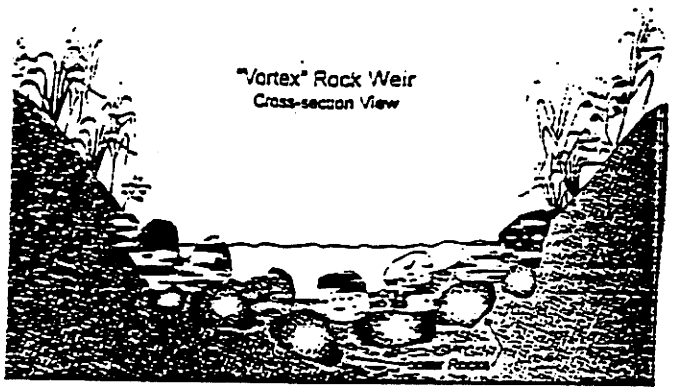
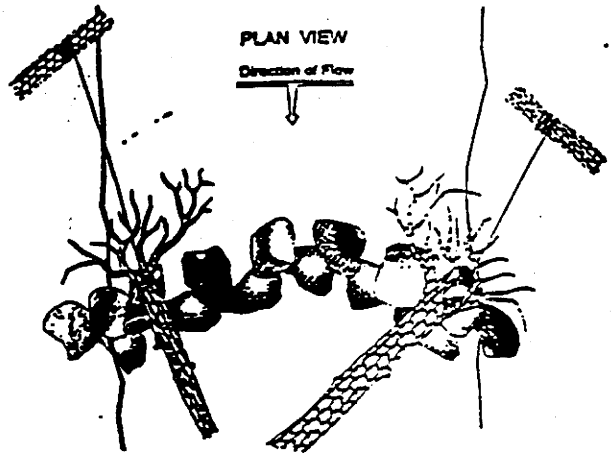


Figure 2. Fish population estimates per section, by species.

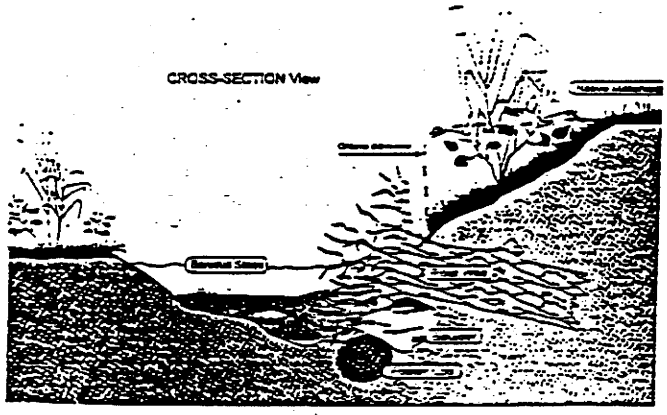
Appendix A



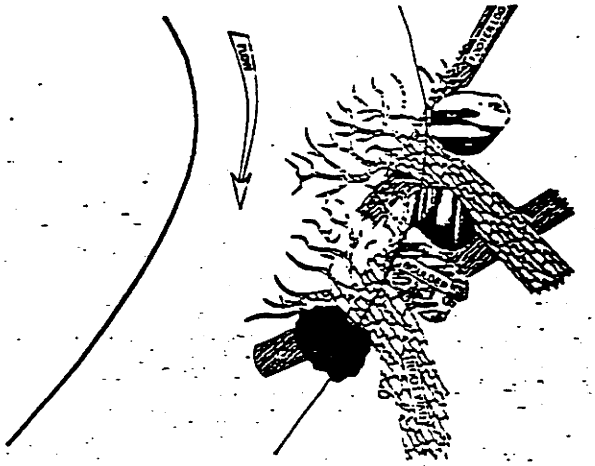
Vortex Rock Weir



Rock Weir with
Floating log covers & Bank anchors

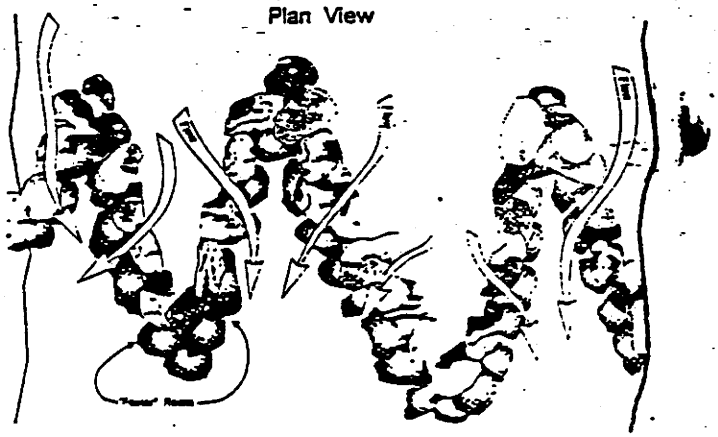


Cross-section View
Bank revetment

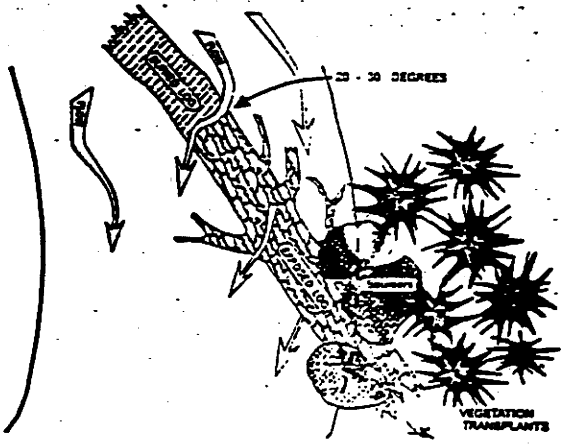


Plan View
Native Material Bank Revetment

"W" Rock Weir
Plan View



"W" Rock Wier



Log-Spur bank feature

ures from Applied River Morphology, Dave Rosgen, 1996.

10. Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction.

(a) Permits:

Agency Name	Permit	Date Filed/#
Montana Fish, Wildlife and Parks	SPA 124	Expected July 1, 1997

(b) Funding:

Agency Name	Funding Amount

Project Funding Sources

Source	**Amount**
Future Fisheries (MTFW&P)	$11,600
US Fish and Wildlife Service	$5,000
Montana Power	$8,000
USDA Forest Service	$8,000
Private landowner in-kind services	$5,000
Total Project Cost	**$45,600**

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

Agency Name	Type of Responsibility
None	

11. List of Agencies Consulted During Preparation of the EA:
None

PART II. ENVIRONMENTAL REVIEW

Evaluation of the Impacts of the Proposed Action Including Secondary and Cumulative Impacts on the Physical and Human Environment. Complete the following checklist, adding comments or narrative as necessary.

IMPACTS

PHYSICAL ENVIRONMENT	UNKNOWN*	NO IMPACTS	IMPACTS:* MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED*	COMMENT INDEX
1. LAND RESOURCES						
Will the proposed action result in:						
a. Soil instability or changes in geologic substructure?		X				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil which would reduce productivity or fertility?		X				
c. Destruction, covering or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?			X			X
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X				
f. Other: _____						

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

d. A temporary increase in stream turbidity will occur during project implementation. After project completion, we expect a reduction in the current erosion and sediment levels.

IMPACTS

PHYSICAL ENVIRONMENT	UNKNOWN*	NO IMPACTS	IMPACTS:* MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED*	COMMENT INDEX
2. AIR						
Will the proposed action result in:						
a. Emission of air pollutants or deterioration of ambient air quality? (also see 13 (c))		X				
b. Creation of objectionable odors?		X				
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				
e. *For P-R/D-J projects, will the project result in any discharge which will conflict with federal or state air quality regs? (Also see 2a)						
f. Other _____						

IMPACTS

PHYSICAL ENVIRONMENT

	UNKNOWN*	NO IMPACTS	IMPACTS:* MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED*	COMMENT INDEX,
3. WATER						
Will the proposed action result in:						
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?			X			X
b. Changes in drainage patterns or the rate and amount of surface runoff?						
c. Alteration of the course or magnitude of flood water or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?		X				
. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?		X				
I. Effects on any existing water right or reservation?		X				
j. Effects on other water users as a result of any alteration in surface or ground-water quality?		X				
k. Effects on other?						

A temporary increase in stream turbidity during project implementation will occur.

IMPACTS

PHYSICAL ENVIRONMENT	UNKNOWN*	NO IMPACTS	IMPACTS:* MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED*	COMMENT INDEX
4. VEGETATION						
Will the proposed action result in:						
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?		X				X
b. Alteration of a plant community?		X				X
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				
d. Reduction in acreage or productivity of any agricultural land?		X				X
e. Establishment or spread of noxious weeds?		X				
**For P-R/D-J, will the project affect wetlands, or prime and unique farmland?						
g. Other: _____						

a, b) This project will improve diversity, productivity and abundance of native plant species.

d) Off-stream watering and riparian fencing has been implemented and will improve range productivity and riparian community health.

e) Disturbed sites will be immediately seeded with a competitive native grass mixture and native riparian woody plants.

IMPACTS

PHYSICAL ENVIRONMENT

	UNKNOWN*	NO IMPACTS	IMPACTS:* MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED*	COMMENT INDEX
5. FISH/WILDLIFE						
Will the proposed action result in:						
a. Deterioration of critical fish or wildlife habitat?		X				X
b. Changes in the diversity or abundance of game animals or bird species?		X				
c. Changes in the diversity or abundance of nongame species?						
d. Introduction of new species into an area?		X				
e. Creation of a barrier to the migration or movement of animals?		X				
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		X				
h. **For P-R/D-J, will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f)						
I. *For P-R/D-J, will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d)						
j. Other: _____						

a) This is a habitat enhancement project and will benefit those fish and wildlife who are dependant on a healthy, functioning riparian zone. Additionally, westslope cutthroat trout are expected to benefit from this project.

IMPACTS

HUMAN ENVIRONMENT	UNKNOWN*	NO IMPACTS	IMPACTS:* MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED*	COMMENT INDEX
6. NOISE/ELECTRICAL EFFECTS						
Will the proposed action result in:						
a. Increases in existing noise levels?		X				
b. Exposure of people to serve or nuisance noise levels?		X				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				
e. Other: _____						

IMPACTS

HUMAN ENVIRONMENT	UNKNOWN*	NO IMPACTS	IMPACTS:* MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED*	COMMENT INDEX
7. LAND USE						
Will the proposed action result in:						
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflicted with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on or relocation of residences?		X				
Other: _____						

IMPACTS

HUMAN ENVIRONMENT	UNKNOWN*	NO IMPACTS	IMPACTS:* MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED*	COMMENT INDEX
8. RISK/HEALTH HAZARDS						
Will the proposed action result in:						
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		X				
b. Affect an existing emergency response or emergency evacuation plan or create a need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?		X				
d. *For P-R/D-J, will any chemical toxicants be used? (Also see 8a)						
e. Other: _____						

IMPACTS

HUMAN ENVIRONMENT	UNKNOWN*	NO IMPACTS	IMPACTS:* MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED*	COMMENT INDEX
9. COMMUNITY IMPACTS						
Will the proposed action result in:						
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?		X				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				
f. Other: _____						

IMPACTS

HUMAN ENVIRONMENT	UNKNOWN*	NO IMPACTS	IMPACTS:* MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED*	COMMENT INDEX
10. PUBLIC SERVICES/ TAXES/UTILITIES						
Will the proposed action result in:						
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify: _____		X				
b. Will the proposed action have an effect upon the local or state tax base and revenues?		X				
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				
d. Will the proposed action result in increased used of any energy source?		X				
e. Other:_____						

IMPACTS

HUMAN ENVIRONMENT	UNKNOWN*	NO IMPACTS	IMPACTS:* MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED*	COMMENT INDEX
11. AESTHETICS/ RECREATION						
Will the proposed action result in:						
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		X				
b. Alteration of the aesthetic character of a community or neighborhood?		X				X
c. Alteration of the quality or quantity of recreational opportunities and settings?		X				X
d. *For P-R/D-J, will any designated or proposed wild or scenic rivers, trails or wilderness areas be npacted? (Also see 11a, 1c)						
e. Other: _____						

b,c) This project will enhance esthetic and recreational values. It is expected to improve recreational fishing opportunities in lower O'Brien Creek, and adjacent Bitterroot and Clark Fork Rivers

IMPACTS

HUMAN ENVIRONMENT	UNKNOWN*	NO IMPACTS	IMPACTS:* MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED*	COMMENT INDEX
12. CULTURAL/ HISTORICAL RESOURCES						
Will the proposed action result in:						
a. Destruction or alteration of any site, structure or object of prehistoric historic, or paleological importance?		X				
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				
d. ***For P-R/D-J, will the project affect historic or cultural resources? Attach SHPO letter of clearance. (also see 12.a)						
e. Other: _____						

IMPACTS

SIGNIFICANCE CRITERIA

	UNKNOWN*	NO IMPACTS	IMPACTS:* MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED*	COMMENT INDEX
13. SUMMARY EVALUATION OF SIGNIFICANCE Will the proposed action, considered as a whole:						
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on tow or more separate resources which create a significant effect when considered together or in total.)		X				
b. Involve potential risks or adverse effects which are uncertain but extreme-ly hazardous if they were to occur?		X				
c. Potentially conflict with the substantive requirements of any local, state, federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X				

2. Description and analysis of reasonable alternatives (including the no action alternative) to the proposed action whenever alternatives are reasonably available and prudent to consider and a discussion of how the alternatives would be implemented:

a. No action alternative

This alternative would be implemented by not taking any actions on the proposed fish habitat restoration plan. The likely outcome of this alternative would be the acceptance of lost native fish species habitat, loss of improved recruitment to the Bitterroot and Clark Fork Rivers, loss of potential fishing opportunity on and off-site, additional siltation of downstream reaches.

3. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

The preferred alternative is an enhancement effort. Past land use actions have disrupted migrations and production of fish species.

4. Based on the significance criteria evaluated in this EA, is an EIS required? YES / NO If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

No. The proposed action represents an enhancement in ecosystem components and the human environment. The positive corrective nature with minimal impacts make an EA the appropriate level of analysis.

5. Describe the level of public involvement for this project if any and, given the complexity and the seriousness of the environmental issues associated with the proposed action, is the level of public involvement appropriate under the circumstances?

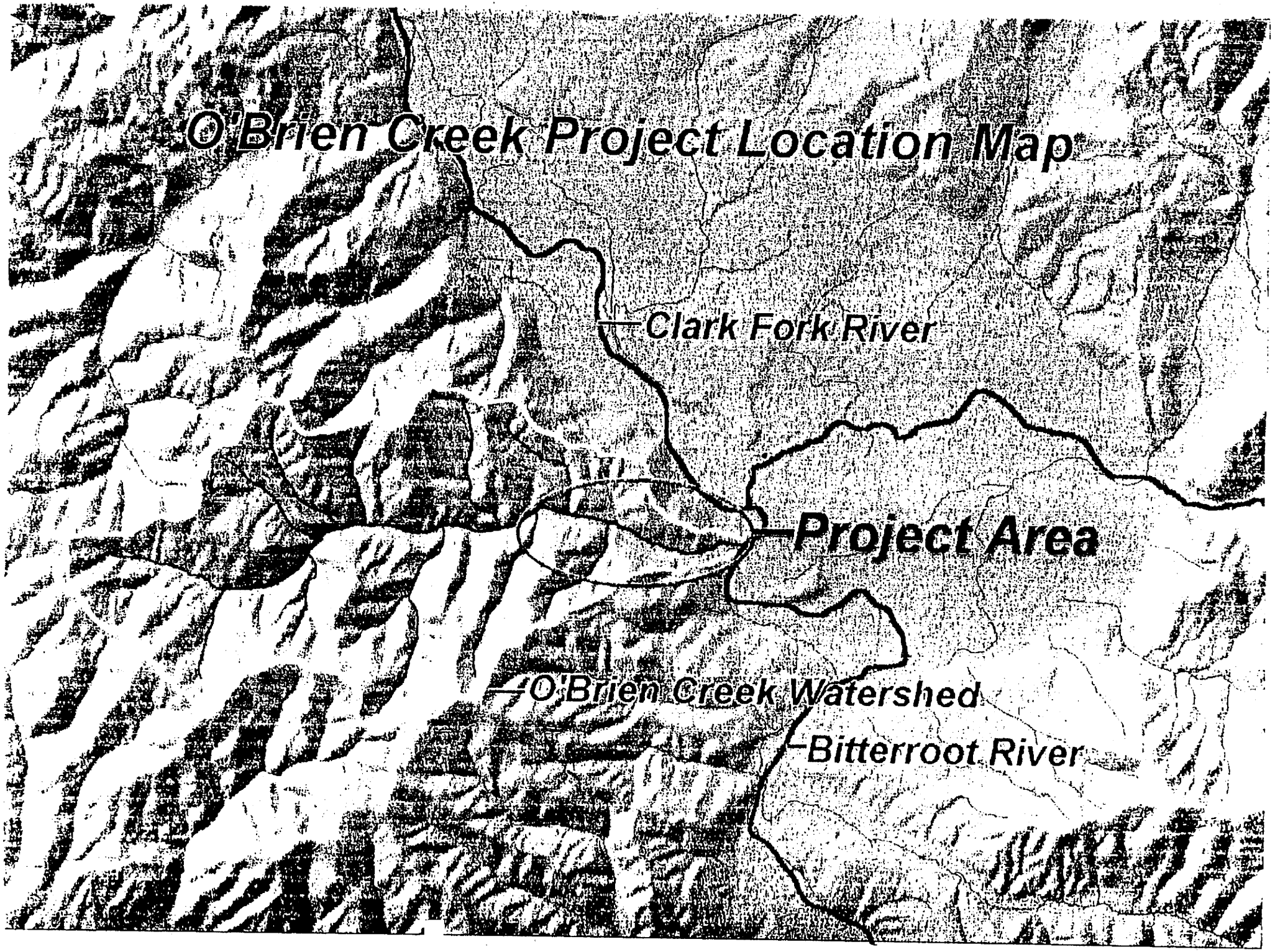
Only limited public involvement is planned. All actions have been approved by the lessee, Montana Fish, Wildlife and Parks, USFWS, USDA Forest Service and the Montana Power Company.

6. Duration of comment period if any:

30 days

. Name, title, address and phone number of the Person(s) Responsible for Preparing the EA:

Ron Pierce
David Schmetterling
Montana Fish, Wildlife and Parks
3201 Spurgin Rd.
Missoula, MT. 59804
406-542-5532


O'Brien Creek Project Location Map
Clark Fork River
Project Area
O'Brien Creek Watershed
Bitterroot River